



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

PATENT APPLICATION

Applicants: Hiroshi AKISUKI, Nobuhide DOTSUBO

Case: Sanyo-74/CPA(997203-01)

Serial No.: 08/919,670

Filed: August 28, 1997

Group Art Unit: 2612

Confirmation No.: 7668

Examiner: Rashawn N. Tillery

Title: ELECTRONIC CAMERA AND BATTERY VOLTAGE CONTROLLING  
METHOD EMPLOYED THEREIN FOR SUCCESSIVELY, RATHER  
THAN SIMULTANEOUSLY, OPERATING CAMERA PORTIONS  
DURING CONDITIONS OF LOW BATTERY VOLTAGE  
(as amended)

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REQUEST FOR REINSTATEMENT OF APPEAL

under 37 CFR §1.193(b)(2)(ii), and

TRANSMITTAL LETTER FOR SUPPLEMENTAL APPEAL BRIEF

In response to the non-final office action dated May 30, 2003 (paper no. 20) which, based on the order mailed August 5, 2002 (paper no. 18) from the Board of Patent Appeals and Interferences ("Board"), re-opened prosecution in the above-captioned application prior to any decision on the merits by the Board, the Applicants now

request, under the provisions of 37 CFR § 1.193(b)(2)(ii), that their appeal be REINSTATED.

As required under this rule, the Applicants also enclose a supplemental appeal brief herewith.

The Applicants have previously paid, in connection with their prior appeal, the fee both for their appeal and for filing their appeal brief, and now request that those fees be applied to the present appeal, as reinstated.

Hence, the Applicants submit that no further fee for reinstating the appeal is due. Nevertheless, in the event any such fee is due -- other than the extension fee submitted simultaneously herewith, kindly charge that fee to my deposit account number 13-3083. To facilitate that charge, a duplicate copy of this letter is enclosed herewith.

Respectfully submitted,

September 3, 2003



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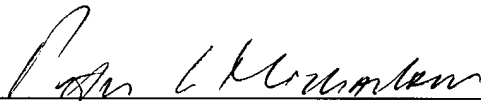
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SUPPLEMENTAL APPEAL BRIEF

In response to the non-final Office Action mailed May 30, 2003 (Paper No. 20) which, based on the order dated August 5, 2002 from the Board of Patent Appeals and Interferences ("Board"), re-opened prosecution in the above-captioned application prior to any decision on the merits by the Board, the Applicants now submit, as required under the provisions of 37 CFR § 1.193(b)(2)(ii), this supplemental appeal brief. Through this brief, the Applicants request that the

Board reverse the outstanding rejections from which appeal is now being taken.

To simplify this brief and in accordance with MPEP § 1208.02, the Applicants, as indicated herein, have incorporated by reference various portions of their prior appeal brief mailed November 13, 2001 (paper no. 16) that are still applicable here.

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I. REAL PARTIES IN INTEREST

The Applicants incorporate by reference herein the information contained in this section of their prior appeal brief mailed November 13, 2001 (paper no. 16).

## II. RELATED APPEALS AND INTERFERENCES

The Applicants incorporate by reference herein the information contained in this section of their prior appeal brief mailed November 13, 2001 (paper no. 16).



### III. STATUS OF CLAIMS

Claims 1-12 are now pending. These claims are rejected and are appealed.

These claims, which were presented through the Applicants' amendment mailed January 10, 2001, have not been amended since the final action mailed March 26, 2001 (paper no. 12).

As a result of the Board's decision mailed August 5, 2002 (paper no. 18), the Examiner has re-opened prosecution in order for the Applicants to respond to various new grounds of rejection which the Examiner raised in the Answer (paper no. 17). In that regard, the Examiner has issued a non-final office action dated May 30, 2003 (paper no. 20) setting forth those rejections. The Applicants have chosen to reinstate their appeal and have not amended their claims.

A copy of these claims, as they currently stand, appears in the Appendix to their prior brief, as well as for convenience, in the Appendix to this Brief.

#### IV. STATUS OF AMENDMENTS

The Applicants incorporate by reference herein the information contained in this section of their prior appeal brief mailed November 13, 2001 (paper no. 16).

V. SUMMARY OF THE INVENTION

The Applicants incorporate by reference herein the information contained in this section of their prior appeal brief mailed November 13, 2001 (paper no. 16).

## VI. ISSUES PRESENTED FOR REVIEW

The propriety of the Examiner's rejection of claims 1-12 is being appealed.

The following issues, as set forth in the Examiner's final action dated March 26, 2001 (paper no. 12), are again presented:

(A) Are claims 1-10, as they now stand, unpatentable as being obvious under the provisions of 35 USC § 103 over the teachings in the Anderson et al patent (United States patent 5,963,255 issued to E. C. Anderson et al on October 5, 1999)?

(B) Are claims 11 and 12, as they now stand, unpatentable as being obvious under the provisions of 35 USC § 103 over the teachings in the Anderson et al patent taken in view of those in Kare et al patent (United States patent 5,541,656 issued to S. D. Kare et al on July 30, 1996)?

The following new grounds of rejection, as indicated in the non-final office action dated May 30, 2003 (paper no. 20) are now presented as well:

(C) Are claims 1, 2, 5 and 7-10, as they now stand, unpatentable as being anticipated under the provisions of 35 USC § 102(e) by the teachings in the Anderson et al patent?

(D) Are claims 3, 4 and 6, as they now stand, unpatentable as being obvious under the provisions of 35 USC § 103 over the teachings in the Anderson et al patent?

(E) Are claims 11 and 12, as they now stand, unpatentable as being obvious under the provisions of 35 USC § 103 over the teachings in the Anderson et al patent taken in view of those in the Kare et al patent?

In the prior Answer (paper no. 17), the Examiner, instead of directly responding to Issue A, raised two new grounds of rejection, specifically Issues C and D. By this action, the Applicants infer that the Examiner has acquiesced to the Applicants' arguments and that Issue A is no longer in contention. However, absent an express indication from the Examiner to that effect in the May 30th non-final action (paper no. 20), the Applicants must assume that these issues still remain unresolved and thus re-present them to Board for review.

The Examiner's arguments underlying Issue E appear to be identical to those previously presented, in the final action, for Issue B. The Applicants have previously responded to these arguments in their prior appeal brief and, as indicated with respect to their response to Issue B below, have simply incorporated by reference those arguments herein.

VII. GROUPING OF CLAIMS

The Applicants incorporate by reference herein the information contained in this section of their prior appeal brief mailed November 13, 2001 (paper no. 16).

VIII. TABLE OF AUTHORITIES

The Applicants incorporate by reference herein the information contained in this section of their prior appeal brief mailed November 13, 2001 (paper no. 16).

The Applicants now cite the following additional authorities:

Oakley Inc. v. Sunglass Hut International 65 U.S.P.Q. 2d 1321, (Fed. Cir. 2003).

Motorola Inc. v. Interdigital Technology Corp. 43 U.S.P.Q. 2d 1481 (Fed. Cir. 1997)

Continental Can Co. USA Inc. v. Monsanto Co. 20 U.S.P.Q. 2d 1746 (Fed. Cir. 1991)

Scripps Clinic & Research Foundation v. Genentech Inc. 18 U.S.P.Q. 2d 1001 (Fed. Cir. 1991)

W. L. Gore & Associates, Inc. v. Garlock, Inc. 220 U.S.P.Q. 303 (Fed. Cir. 1983)

In re Oelrich 212 U.S.P.Q. 323 (C.C.P.A. 1981).

## IX. ARGUMENT

A. Each of claims 1-10 is not obvious under the provisions of 35 U.S.C. § 103 over the teachings in the Anderson et al patent. Hence, all of these claims are patentable.

First, the Applicants incorporate by reference herein all their arguments previously made in their prior appeal brief (paper no. 16) in response to this rejection. In view of those arguments, this rejection is respectfully traversed. The Applicants now request the Board to reverse it.

Second, the Applicants, having considered the Examiner's remarks in both paragraph 11 of the Answer (paper no. 17) and the non-final action (paper no. 20), provide the following supplemental arguments further supporting their view.

It appears to the Applicants that the Examiner continues to base her conclusions on inferences drawn from the disclosure of the Anderson et al patent, but inferences that, on close examination, are simply not supported by the express teachings of that disclosure.

To prevent confusion, it is essential to keep the operation of the Applicants' inventive digital camera firmly in mind.

Specifically, the Applicants' camera, during a power saving mode, simultaneously displays a captured image while that image is being recorded onto a recording medium but ceases its display once that image has been fully recorded. Furthermore, a flash capacitor is not charged while the image is being recorded



and displayed. Once the image is fully recorded, the monitor is shut off, effectively causing the displayed image to disappear from view. It is only after that happens, but still during the power saving mode, that the camera permits the flash capacitor to then charge. In essence and during a power saving mode, the monitor and the flash capacitor operate sequentially (not simultaneously) with the former operating while the image is being recorded, and only after recording is complete, will the latter occur. Stated differently, the flash capacitor will recharge while the camera remains in a power saving mode but only after the image has been recorded and the monitor shut off. Permitting the flash capacitor to recharge during this mode sharply and diametrically contrasts with the teachings of the Anderson et al patent -- which preclude this operation from occurring.

Why is this particular sequence of operations important to the Applicants? Several reasons. First, it clearly conserves battery power. Second, it provides visual confirmation to a user, through disappearance of a displayed and captured image (i.e. scanned and stored in volatile storage), that this image has in fact been recorded onto a non-volatile medium. Third, it advantageously solves a problem of image loss, occurring under low battery power conditions, that inheres in certain conventional digital cameras.

Specifically, certain conventional digital cameras will recharge a flash capacitor after an image has been captured but not yet fully recorded. Contrary to any inference drawn by the Examiner, this problem does NOT occur in the camera taught by the Anderson et al patent. If a conventional camera has a battery which has been sufficiently discharged through use and

then the flash is allowed to re-charge, hence placing a relatively high current load on that battery, the battery voltage will likely drop below a level at which digital electronics in the camera will operate. When this occurs, any image that has then been captured but not recorded will be lost. Why is this so? Simply because the resulting battery voltage drops below the level at which the digital electronics cease operating and hence cease recording.

Why does this problem not arise in camera taught by the Anderson et al patent? Simple. During a power saving mode, the rigid hierarchy of power shut down operations taught by this patent first shuts off the component which likely presents the highest drain on battery current: the flash unit, before shutting off any other components. Given this, the image loss problem addressed by the Applicants -- which arises whenever a flash unit recharges during low battery voltage conditions -- will just not occur.

The Examiner states, as expressed in the last paragraph on page 3 of the non-final action (paper no. 20) and with respect to the camera taught by the Anderson et al patent: "As shown in figures 7A and 7B, the camera is also capable of re-activating these power draining devices at a reduced power charging mode." Obviously, the Examiner must have in mind that while that camera remains in a power saving mode, various camera components can be re-activated.

The express teachings of the Anderson et al patent absolutely fail to support this view. Yes, those camera components are capable of being re-activated. But, opposite to the Examiner's view, they are re-activated only after the power

has been sufficiently restored to the camera and the camera has exited the power saving mode but NOT before.

In that regard and with respect to the flash unit, the rigid hierarchy of shut down operations taught by the Anderson et al patent -- which the Applicants describe in pages 13-18 of their prior brief (paper no. 16) with reference to, e.g., col. 7, lines 23 et seq of that patent, does NOT permit the flash capacitor to begin recharging until AFTER the battery voltage has once again returned to a sufficient level. In that regard, note col. 8, line 52 - col. 9, line 66 of that patent which expressly states in pertinent part:

"The camera application unit 84 is coupled to receive alert signals from PMS 82, and in response outputs a power state change command to the camera control unit 86. If an alert signal set to power state 4 is received, the camera application unit 84 waits for the power source 74 voltage to recover for a predetermined amount of time, preferably 25 msec. This predetermined amount of time gives the power source 74 time to 'bounce' back after various power draining devices within the camera 10 have been deactivated.

*... If the PMH 70 has not stopped generating the alert interrupt signal, the camera application unit 84 assumes that the power source 74 is not recovering and transmits a power state change command set to Power State 1 to the camera control unit 86. The camera application unit 84 prepares for power failure or shuts down the camera 10 as described earlier.*

*... After a power-up or power-failure-restart (when an AC adapter is connected to the power source 74 or new*

batteries are installed), the camera application unit 84 always transmits a power state change command set to Power State 5 (the highest power state) to the camera control unit 86.

... Upon receiving a power state change command set to Power State 5 from the camera application unit 84, the camera control unit 86 generates the flash unit maximum power signal. Upon receiving a power state change command set to Power State 4, the camera control unit 86 generates the flash unit one-half maximum power signal, and restarts the flash charging, which was automatically stopped by the PMH 70." [emphasis added]

These teachings are clear and explicit. They admit of only one plausible interpretation: once the camera, as taught by the Anderson et al patent, enters a power saving mode and the flash unit is turned off, it remains off while the camera remains in that mode. Recharging only occurs when camera power is sufficiently restored -- and once that happens the camera is NO LONGER in the power saving mode. The Examiner apparently fails to recognize that the mode must change in order for recharging to occur. This contrasts VERY SHARPLY with the Applicants' inventive teachings of permitting the flash capacitor to recharge while their camera remains in its power saving mode.

Given the Examiner's erroneous view, the Examiner then states, at the bottom of the last paragraph on page 3 bridging over to the top of page 4 of the May 30th office action (paper no. 20), that "since Anderson discloses that the camera may still capture additional images after the flash unit is shut off, and there is no mention of shutting off power to the

display, the Examiner is of the opinion that Anderson's camera would include recording and displaying before charging the flash unit."

While the Applicants agree with the Examiner's initial premise the camera taught by the Anderson et al patent can capture images, during a power saving mode, after the flash unit is shut off, the Applicants strenuously disagree with the conclusion the Examiner then infers, i.e. that the camera, during a power saving mode, would including recording and displaying before charging the flash unit.

In that regard, the Applicants agree, as stated on page 18 of their prior brief (paper no. 16), with the Examiner's view that the Anderson et al patent teaches the concept of capturing and recording an image during a power saving mode and after the flash has been turned off, i.e. before the flash capacitor again recharges. This seems to occur during power states 3 and then 2 as taught in that patent.

But, recording and displaying images before the flash capacitor recharges presupposes that the flash recharging will commence at some point in the future -- at which point the camera will no longer be in the power saving mode. Under the express and unmistakable teachings in the Anderson et al patent, flash recharging will only resume once power is adequately restored to the camera (at which point the camera exits its power saving mode) but NOT before. Absent an adequate resumption of power, once that camera starts reducing its power state and shuts down the flash unit by passing to power state 3 (and lower), images may still be captured and recorded but the flash unit remains off; it will not recharge. As long as power

is not restored, the camera remains in a power saving mode and the flash capacitor will not be recharged. Power must be restored to the camera, and hence the camera must exit the power saving mode, for the flash to recharge. It is just that simple. Any contrary belief of the Examiner is based on an inference that is totally unsupported by the Anderson et al disclosure and any conclusion based on that inference is incorrect.

Therefore, directly contrary to the Examiner's view, no motivation exists from which one of ordinary skill in the art could reasonably infer, from the express teachings of the Anderson et al patent, the problem which the Applicants address -- which simply does not arise in the camera taught by this patent -- and their inventive solution. Consequently, as the Applicants have previously opined, there can be only one credible explanation for the Examiner's conclusion: that conclusion must be predicated on hindsight -- which is impermissible in assessing obviousness.

Any reasonable reading of the Anderson et al patent reveals its utter failure -- contrary to the Examiner's view -- to provide an evidentiary basis for any suggestion, teaching or motivation to one skilled in the art essential and sufficient to render the present invention obvious. Its teachings simply do not extend as far as the Examiner opines or wishes. As such, the Examiner, as the Applicants have previously argued, has failed to put forth a prima facie case of obviousness.

As indicated in the prior brief (paper no. 16), independent claims 1 and 7 currently contain suitable recitations directed at the distinguishing aspects of the present invention.

Thus, the Applicants submit that the invention recited in each of claims 1 and 7 is not rendered obvious by the teachings in the Anderson et al patent. Therefore, both of these claims are patentable under 35 U.S.C. § 103.

Each of claims 2-6 and 8-10 directly or indirectly depends from claim 1 or 7, respectively, and recites further distinguishing features of the present invention. Therefore, the Applicants submit that each of these dependent claims is also not rendered obvious over the teachings in the Anderson et al patent and hence is patentable under the provisions of 35 U.S.C. § 103 for the same exact reasons set forth above.

B. Each of claims 11 and 12 is not obvious under the provisions of 35 U.S.C. § 103 over the teachings in the Anderson et al and Kare et al patents. Hence, both of these claims are also patentable.

The Applicants incorporate by reference herein all their arguments previously made, in their prior brief (paper no. 16), in response to this rejection. In view of those arguments, this rejection is respectfully traversed. The Applicants now request the Board to reverse it.

At this point, the Applicants see no reason to supplement those arguments.

C. Each of claims 1, 2, 5 and 7-10 is not anticipated under the provisions of 35 USC § 102(e) by the teachings in the Anderson et al patent. Hence, all of these claims are patentable.

The Examiner takes the position that each of the limitations of these claims are anticipated by the teachings of the Anderson et al patent. This position is incorrect and is respectfully traversed. The Applicants now request the Board to reverse it.

For simplicity, the Applicants will specifically address this rejection in the context of independent claim 1.

In order for a claim to be anticipated by a reference under § 102, each and every limitation of that claim must be found either expressly or inherently within a single prior art reference. Oakley Inc. v. Sunglass Hut International 65 U.S.P.Q. 2d 1321, 1325 (Fed. Cir.2003). See also, Motorola Inc. v. Interdigital Technology Corp. 43 U.S.P.Q. 2d 1481, 1490 (Fed. Cir. 1997) ("For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art.) and Scripps Clinic & Research Foundation v. Genentech Inc. 18 U.S.P.Q. 2d 1001, 1010 (Fed. Cir. 1991) ("Invalidity for anticipation requires that all of the elements and limitations of the claim are found within a single prior art reference. [citations omitted] There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.") Further, see W. L. Gore & Associates, Inc. v. Garlock, Inc. 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983) ("Anticipation requires the



disclosure in a single prior art reference of each element of the claim under consideration." ). Inherency arises where the reference is silent about an asserted characteristic set forth in the claim. Where this arises, recourse to extrinsic evidence is permissible but that evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Continental Can Co. USA Inc. v. Monsanto Co. 20 U.S.P.Q. 2d 1746, 1749 (Fed. Cir. 1991) citing to In re Oelrich 212 U.S.P.Q. 323, 326 (CCPA 1981). Further, in the Continental Can decision, the Federal Circuit stated: "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. ... If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient." 20 U.S.P.Q. 2d at 1749 [emphasis in original].

Under this analysis, claim 1 is clearly not anticipated by the teachings of the Anderson et al patent.

In particular and as described in both the Applicants' prior brief (paper no. 16) and above with respect to Issue A, the Applicants' inventive camera, during a power saving mode, operates the monitor and recharges the flash capacitor in a time-staggered, i.e. sequential, operation. Specifically, as discussed above, during this mode, the camera first displays a captured image while that image is being recorded and then ceases its display once that image has been fully recorded. Once the monitor is shut down and still during a power saving

mode, the flash capacitor is then allowed to recharge. The disappearance of the image provides visual confirmation to the user that the image has been fully recorded.

As fully explained above, the Anderson et al patent totally fails to teach, disclose or even suggest an operation of a camera in a power saving mode where the flash capacitor is allowed to recharge AFTER an image has been recorded. In fact, the Anderson et al patent teaches the exact opposite, i.e. that during a power saving mode, the flash unit rather than being allowed to recharge after an image is recorded, is shut down prior to the image being recorded. Once the flash unit is shut down, it remains so until power is sufficiently restored to take the camera out of the power saving mode and hence resume normal operation.

The Applicants' operation of sequentially operating the monitor and the flash unit in order to permit the flash capacitor to recharge during a power saving mode sharply and diametrically contrasts with the teachings of the Anderson et al patent.

This inventive and distinguishing operation is specifically recited in claim 1, which states as follows with this limitation being shown in a bolded typeface:

"An electronic camera comprising:

a signal processing portion for processing an imaged video signal obtained from an imaging element to form image data;

a monitor for displaying said image data;

an electronic flash device;

a battery for supplying voltage to said signal processing portion, said monitor and said electronic flash device;

a battery voltage detector circuit; and

a system controller;

wherein:

said electronic flash device includes a capacitor charged when no light is emitted from the flash device, and a discharge tube which receives an output from capacitor and, in response thereto, emits light; and

said system controller receives an output from said battery voltage detector circuit, determines whether an amount of electric charge remaining in said battery is below a predetermined value, and controls displaying on said monitor and charging of said capacitor such that, when the amount of electric charge remaining in said battery is below said predetermined value, display of the image data and charging of the capacitor are not simultaneously performed and an operation of displaying the image data on the monitor and recording the image data on a recording medium is completed before an operation of charging the capacitor occurs so that the image data will be preserved on the medium should the battery voltage, as a result of the charging operation, decrease below a level at which the camera would record the image, wherein the image data is displayed on the monitor after the image has been recorded but before the capacitor has begun charging such that, through display of the image data, a user is informed that the image data has been recorded on the medium." [emphasis added]

Not only is this inventive operation of staggering the operation of the monitor and the flash unit so as to permit the flash capacitor to recharge during a power saving mode not disclosed, taught or suggested in the Anderson et al patent, but also, given that this patent teaches the direct opposite, this operation is clearly not "necessarily present" in camera taught by this patent nor would it be recognized by one of ordinary skill to be present therein. Accordingly, the Applicants' inventive operation is simply not inherent in the teachings of the Anderson et al patent.

Independent claim 7 contains very similar distinguishing limitations, as shown in a bolded typeface below, to those in claim 1:

"A battery voltage controlling method employed in an electronic camera, comprising the steps of:

detecting whether an amount of electric charge remaining in a battery is below a predetermined value; and

**successively performing displaying on a monitor and charging of a capacitor when said amount of electric charge remaining in said battery is below said predetermined value such that an operation of displaying and recording image data is completed before an operation of charging the capacitor occurs so that the image data will be preserved on the medium should voltage produced by the battery, as a result of the charging operation, decrease below a level at which the camera would record the image, wherein the image data is displayed on the monitor after the image has been recorded but before the capacitor has begun charging such that, through display of the image data, a user is informed**

that the image data has been recorded on the medium."  
[emphasis supplied]

As such, the Applicants submit that neither independent claims 1 or 7 is anticipated under the provisions of 35 USC § 102(e) by the teachings in the Anderson et al patent.

Each of dependent claims 2, 5 and 8-10 depends, either directly or indirectly, from independent claims 1 and 7 and recites further distinguishing features of the present invention.

Accordingly, the Applicants submits that each of these dependent claims is also not anticipated by the teachings of the Anderson et al patent and thus is patentable under the provisions of 35 USC § 102(e).

D. Each of claims 3, 4 and 6 is not rendered obvious under the provisions of 35 USC § 103 by the teachings in the Anderson et al patent. Hence, all of these claims are patentable.

The Examiner takes the position that the limitations of each of these claims are rendered obvious by the teachings of the Anderson et al patent. This position is also incorrect and is respectfully traversed. The Applicants now request the Board to reverse it.

Each of these dependent claims depends, either directly or indirectly, from claim 1.

The Applicants have set forth their arguments, in connection with Issue A, both in the prior appeal brief (paper

no. 16) and above, as to why claim 1 is not obvious in view of the teachings of the Anderson et al patent. As was the case with their response to Issue A, the Applicants now incorporate by reference herein the arguments which they previously set forth in their prior appeal brief as to that issue and also refer the Board to their further arguments given above.

Hence, for the sake of brevity, the Applicants will not repeat any of those arguments here.

Nevertheless, in view of those arguments, the Applicants submit that claim 1 is not obvious in view of the teachings in Anderson et al patent, and hence is patentable under the provisions of 35 USC § 103.

Each of the rejected dependent claims ultimately depends from claim 1 and recites further distinguishing aspects of the present invention. Hence, the Applicants also submit that each of these dependent claims is not rendered obvious by the teachings of the Anderson et al patent for the same reasons regarding claim 1. Accordingly, each of these dependent claims is also patentable under the provisions of 35 USC § 103.

E. Each of claims 11 and 12 is not rendered obvious under the provisions of 35 USC § 103 over the teachings in the Anderson et al patent taken in view of those in the Kare et al patent. Hence, both of these claims are patentable.

See the Applicants' argument for Issue B above.

X. CONCLUSION

Hence, the Applicants submit that all of their claims, as they presently stand, are patentable under the provisions of 35 U.S.C. §§ 102 and 103.

Therefore, the Appellants now respectfully request that the Board reverse all the outstanding rejections, from which this appeal is now taken, and direct the Examiner to pass this application to issue.

Respectfully submitted,

September 3, 2003




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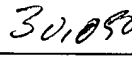
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## APPENDIX

### CLAIMS UNDER APPEAL

1        1. An electronic camera comprising:  
2            a signal processing portion for processing an imaged video  
3        signal obtained from an imaging element to form image data;  
4            a monitor for displaying said image data;  
5            an electronic flash device;  
6            a battery for supplying voltage to said signal processing  
7        portion, said monitor and said electronic flash device;  
8            a battery voltage detector circuit; and  
9            a system controller;  
10        wherein:

11            said electronic flash device includes a capacitor  
12        charged when no light is emitted from the flash device, and a  
13        discharge tube which receives an output from capacitor and, in  
14        response thereto, emits light; and

15            said system controller receives an output from said  
16        battery voltage detector circuit, determines whether an amount  
17        of electric charge remaining in said battery is below a  
18        predetermined value, and controls displaying on said monitor and  
19        charging of said capacitor such that, when the amount of  
20        electric charge remaining in said battery is below said  
21        predetermined value, display of the image data and charging of  
22        the capacitor are not simultaneously performed and an operation  
23        of displaying the image data on the monitor and recording the  
24        image data on a recording medium is completed before an  
25        operation of charging the capacitor occurs so that the image  
26        data will be preserved on the medium should the battery voltage,  
27        as a result of the charging operation, decrease below a level at

28     which the camera would record the image, wherein the image data  
29     is displayed on the monitor after the image has been recorded  
30     but before the capacitor has begun charging such that, through  
31     display of the image data, a user is informed that the image  
32     data has been recorded on the medium.

1     2. The electronic camera according to claim 1, wherein said  
2     system controller also controls displaying on said monitor and  
3     charging of said capacitor such that display of the image data  
4     and charging of the capacitor are simultaneously performed when  
5     the amount of electric charge remaining in said battery is at  
6     least equal to said predetermined value.

1     3. The electronic camera according to claim 1, wherein said  
2     predetermined value represents half of a full amount of the  
3     electric charge stored in said battery.

1     4. The electronic camera according to claim 3, wherein said  
2     system controller also controls displaying on said monitor and  
3     charging of said capacitor such that display of the image data  
4     and charging of the capacitor are simultaneously performed when  
5     the amount of electric charge remaining in said battery is at  
6     least equal to said predetermined value.

1     5. The electronic camera according to claim 1, wherein said  
2     monitor is an LCD monitor.

1     6. The electronic camera according to claim 1, further  
2     comprising a digital processing portion for applying a  
3     digital-signal processing to a video signal.

1 7. A battery voltage controlling method employed in an  
2 electronic camera, comprising the steps of:  
3 detecting whether an amount of electric charge remaining in  
4 a battery is below a predetermined value; and  
5 successively performing displaying on a monitor and  
6 charging of a capacitor when said amount of electric charge  
7 remaining in said battery is below said predetermined value such  
8 that an operation of displaying and recording image data is  
9 completed before an operation of charging the capacitor occurs  
10 so that the image data will be preserved on the medium should  
11 voltage produced by the battery, as a result of the charging  
12 operation, decrease below a level at which the camera would  
13 record the image, wherein the image data is displayed on the  
14 monitor after the image has been recorded but before the  
15 capacitor has begun charging such that, through display of the  
16 image data, a user is informed that the image data has been  
17 recorded on the medium.

1 8. The battery voltage controlling method according to claim 7,  
2 further comprising the step of simultaneously performing  
3 displaying on said monitor and charging of said capacitor when  
4 said amount of electric charge remaining in said battery is at  
5 least equal to said predetermined value.

1 9. The battery voltage controlling method according to claim 7,  
2 wherein said predetermined value represents half of a full  
3 amount of the electric charge stored in said battery.

1 10. The battery voltage controlling method according to  
2 claim 9, further comprising the step of simultaneously  
3 performing displaying on said monitor and charging of said

capacitor when said amount of electric charge remaining in said battery is at least equal to said predetermined value.

11. An electronic camera comprising:

an operation key;

a signal processing portion for processing an imaged video signal obtained from an imaging element to form image data and storing said image data on a recording medium in response to operation of said operation key;

a monitor for displaying said image data thereon;

an electronic flash device;

a battery for supplying voltage to said signal processing portion, said monitor and said electronic flash device;

a battery voltage detector circuit connected to said battery; and

a system controller connected to said battery voltage detector circuit, said monitor, said signal processing portion and said electronic flash device;

wherein:

said electronic flash device has a capacitor charged with current supplied from said battery when said electronic flash does not emit a flash of light, and a discharge tube which receives an output from said capacitor and, in response thereto, produces the flash of light; and

said system controller receives an output from said battery voltage detector circuit and determines whether a remaining amount of electric charge in the battery is below a predetermined value, and, if the remaining amount of the charge is below the predetermined value, does not permit displaying on said monitor and charging of said capacitor to occur simultaneously, such that the system controller prevents the capacitor from being charged while the monitor is displaying the

30 image data when one screen of the image data is being recorded  
31 on the recording medium, and controls the monitor to be  
32 inoperative while said capacitor is being charged after one  
33 screen of said image data has been completely recorded on the  
34 recording medium so that the image data will be preserved on the  
35 medium should the battery voltage, as a result of the charging  
36 operation, decrease below a level at which the camera would  
37 record the image, wherein the image data is displayed on the  
38 monitor after the image has been recorded but before the  
39 capacitor has begun charging such that, through display of the  
40 image data, a user is informed that the image data has been  
41 recorded on the medium.

1 12. The electronic camera is claim 11, wherein, after said  
2 capacitor has been completely charged, said system controller  
3 prohibits the capacitor from being charged and causes the  
4 monitor to operate.